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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/771,013	01/25/2001	Klaus Vogler	LMPY-11310	6357

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EXAMINER


NGUYEN, PHILLIP

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/771,013	Applicant(s) VOGLER ET AL.	
	Examiner Phillip Nguyen	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/29/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 30-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 30, 37, 41, and 47 recites "said laser" which are lack of antecedence basis.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 11-14, 18-21, 25-32, 36-40, and 44-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Cielo et al. ('948).

With respect to claims 1, 7, 19, 26, Cielo discloses in Figure 2 a laser resonator apparatus 100 comprising an uncoated beam splitter 108 formed of substantially material transparent to radiation having said wavelength below 200 nm disposed to reflect a

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portion of the radiation in the output beam; a IR detector **126** for measuring at least one optical parameter of the output beam portion reflected by the uncoated beam splitter; and a beam path enclosure **112** containing said uncoated beam splitter and having an interior prepared such that an optical path of said beam portion through said enclosure from said laser resonator to said detector via said reflection by said beam splitter is substantially free of photoabsorbing species that substantially photoabsorb radiation of said wavelength below 200 nm so that the beam portion reflected by said beam splitter reaches said detector without substantial attenuation from said photoabsorbing species. It is noted that the enclosure **112** contains inert gas that is free of photoabsorbing species.

With respect to claims 4-5, 13-14, 20, 27, 31, 38, 44, and 48, Cielo discloses the detector being sealed in the beam path enclosure for maintaining an interior of said detector enclosure substantially free of said photoabsorbing species. It is noted that the detector enclosure is defined between the detector and the beam splitter while the beam path enclosure is defined between the laser and beam splitter to the target.

With respect to claim 6, Cielo discloses in Figures 3 and 4 the beam splitter being disposed along an optical path of said output beam from said resonator and transmits a substantial portion of light incident.

With respect to claims 11, 18, 21, 25, 28-29, 32, 36, 39-40, 45-46, and 49, Cielo discloses a one port **128** for purging said detector enclosure with an inert gas to maintain said enclosure substantially free of VUV photoabsorbing species. It is noted that the detector enclosure and beam path enclosure are coupled to each other.

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With respect to claim 12, Cielo discloses the claimed invention as shown in the claim rejection of claim 1. It is noted that the detector inherently includes a window for receiving light.

With respect to claims 30, 37, 47, Cielo discloses in Figure 2 a laser resonator apparatus 100 comprising a IR detector 126 for measuring at least one optical parameter from first beam radiation emitted from said laser, and a beam path enclosure 112 having an interior prepared such that an optical path of said first beam through said enclosure from said laser resonator to said detector is substantially free of VUV photoabsorbing species so that said first beam reaches said detector without substantial attenuation from said photoabsorbing species.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-10, 15-17, 22-24, 33-35, 41-43, 50-52 rejected under 35 U.S.C. 103(a) as being unpatentable over Cielo et al. ('948) in view of Onkels et al. ('260).

With respect to claim 8-10, 15-17, 22-24, 33-35, and 41-43, Cielo discloses the claimed invention except for means for separating said visible radiation from 157 nm radiation wherein said means comprises dispersion prism. Onkels discloses means for separating visible radiation from beam of 157 nm with a dispersive prism (col. 25, lines

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50-63) except for a beam splitter. For the improvement of the laser resonator, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to provide a separating means comprising a dispersive prism as taught by Onkels to separate the visible beams from 157 nm beam before detector in order to detect the VUV beams only.

With respect to claims 50-52, Cielo discloses the claimed invention except for a discharge chamber filled with buffer gas, a plurality of electrodes, a resonator having the discharge chamber. Onkels discloses a F2 /ArF laser in Figure 6 with for a discharge chamber filled with buffer gas, a plurality of electrodes 83 and 84, a resonator having the discharge chamber except for the beam parameter monitoring unit as disclosed by Cielo. For the improvement of the laser apparatus, it would have been obvious to the one having ordinary skill in the art at the time the invention was made to replace/change laser 104 by a F2/ArF laser to detect the output beam from F2/ArF laser.

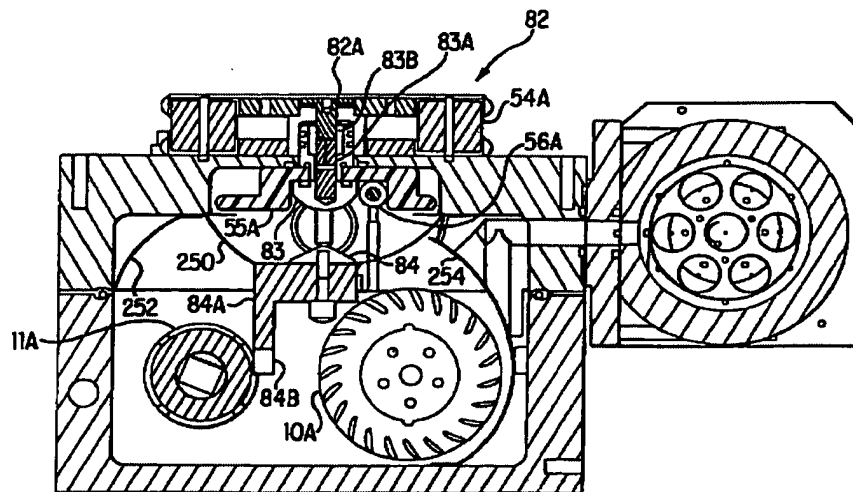


FIG.6

Citation of Pertinent References

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patent to Cielo et al. discloses Method and Apparatus for Evaluating the Degree of Cure in Polymeric Composites, U.S. Patent No. 4874948

The patent to Onkels et al. discloses F2 Laser with Visible RED and IR control, U.S. Patent No. 6330260

Communication Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Nguyen whose telephone number is 571-272-1947.

The examiner can normally be reached on 9:00 AM - 6:00 PM.

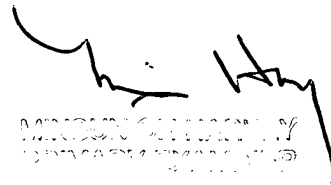
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUM HARVEY, can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink is written over a circular official stamp. The stamp contains text that is mostly illegible due to the signature and the quality of the scan, but it appears to be an official seal or stamp from a government agency.